

Abstract of the Disclosure

A plasma is generated by feeding an antenna with radio-frequency electric power generated by a radio-frequency power source, and one end of the antenna is grounded to the earth through a capacitor of variable capacitance. A Faraday shield is electrically isolated from the earth, and the capacitance of the variable capacitor is determined to be such a value that the voltage at the two ends of the antenna may be equal in absolute values and inverted to reduce the partial removal of the wall after the plasma ignition. At the time of igniting the plasma, the capacitance of the capacitor is adjusted to a larger or smaller value than that minimizing the damage of the wall.